

## Lenses and Mirrors

I will assign one for each partner. Think in terms of doing two experiments. To figure this out.

1. \*\* convex lens- Hold the lens so that the object is inverted and smaller. Draw a ray diagram. Calculate the image height. Calculate the height of this building. Do Percent Error.
2. \*\* concave lens- Hold the lens so that the object is right side up and smaller. Draw a ray diagram. Calculate distance of the image. Calculate the focal length. Calculate the height of the new flag pole outside of my room. Do Percent Error use triangulation to get the correct measurement.
3. \*\* Use the large concave mirror. Draw a ray diagram Calculate the distance of the image. Calculate the focal length. Calculate the height of the new flag pole or the height of this building using this mirror. Do Percent Error use triangulation to get the correct measurement.
4. Using the side mirror on the passenger side of a car calculate the height of a car that is behind your car. Do Percent Error use triangulation to get the correct measurement.

\*\*\* All students will do this as the third task for this chapter.

\*\* To find the height of these objects you will use the sun and a meter stick to find the angle of the sun. Then using this angle and the length of the shadow you can find the correct height of the object.